

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated June 14, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due consideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 11, 13 and 16-19 are under consideration in this application. Claims 11 and 13 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicant's invention. New claims 16-19 are being added.

The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 11 and 13 were objected to for various informalities, and the Examiner has requested correction thereof. Claim 11 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

As indicated, claims 11 and 13 are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claim 13 was rejected under 35 U.S.C. § 102(e) as being anticipated by US. Pat. No. 6,654,073 to Maruyama et al. (hereinafter "Maruyama"), and claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Maruyama. These rejections have been carefully considered, but are most respectfully traversed.

The liquid crystal display device of the invention (for example, the embodiment depicted in Figs. 1A-B), as now recited in claim 11, comprises: thin film transistors TFTs, scanning signal lines GLs, data signal lines DLs which are arranged in a state that the data

signal lines DLs intersect the scanning signal lines GLs, a pixel electrode PX electrically connected to an output electrode SD2 (i.e., a source electrode) of one of the thin film transistors TFTs, and a common electrode CT which forms an electric field between the common electrode CT and the pixel electrode PX; and a pixel region which is surrounded by neighboring two of the scanning signal lines GLs and neighboring two of the data signal lines DLs. A metal heat diffusion member PXM which is disposed in a spaced apart manner from the thin film transistor TFT. The heat diffusion member PXM has a projecting portion PXMP (Fig. 1A) which is remoter than a distance between the thin film transistor TFT and the heat diffusion member PXM. The projecting portion PXMP is superposed with a transparent electrode, and the transparent electrode is one of the pixel electrode PX and the common electrode CT. The pixel electrode PX and the common electrode CT are formed in the same layer (Fig. 1B). An inorganic insulation film PAS1 and an organic insulation film PAS2 are provided between a layer on which the heat diffusion member PXM is formed and the layer in which the pixel electrode PX and the common electrode CT are formed. The organic insulation film PAS2 has a removed portion HOL (Figs. 7-8) at least at the superposed portion between the heat diffusion member PXM and the transparent electrode.

The invention recited in claim 13 is directed to a liquid crystal display device including all elements recited in claim 11, excepts the scanning signal lines, the data signal lines and the pixel region.

As recited in claim 16 and 18, an electrode residue XDP (Fig. 2; p. 16, line 6-7) which short-circuits the pixel electrode PX and the common electrode CT as they are formed. As recited in claim 17 and 19, a laser beam irradiated void LRP (Fig. 3; p. 16, lines 11-13) on the projecting portion PXMP of the diffusion member PXM and a simultaneously-formed laser beam irradiated void on the pixel electrode PX, wherein the voids electrically insulate the pixel electrode PX from the common electrode CT after they are short-circuited (*“with the irradiation of the laser beams having such intensity of energy, the pixel electrodes PX which are superposed on the metal film PXM by way of the insulation films PAS1, PAS2 (see Fig. 1) are evaporated and cut together with the metal film PXM and the pixel electrodes PX are separated from the common electrodes CT”* p. 16, lines 16-22).

Due to such repairing operation (Figs. 2-4), the pixel electrode and the common electrode are no longer short-circuited by the short-circuit portion XDP such that it is possible to turn on and off the pixel electrodes (p. 16, last paragraph).

Applicants respectfully contend that none of the cited prior art references teaches or

suggests "the same layer in which the pixel electrode PX and the common electrode CT are formed" as in the invention.

In contrast, Maruyama's pixel electrode 31 and common electrode 52 are formed in two different layers (Fig. 8) such that there is no electrode residue formed to short-circuit them as they are formed. As such, Maruyama does not involve or solve the short-circuit problem recited in claims 16 and 18. Further, Maruyama does not provide any laser beam irradiated voids on the projecting portion of the diffusion member and on the pixel electrode to electrically insulate them after they are short-circuited (claims 17 and 19).

Maruyama fails to teach or suggest each and every feature of the present invention as recited in independent claims 11 and 13, which other claims depend from. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

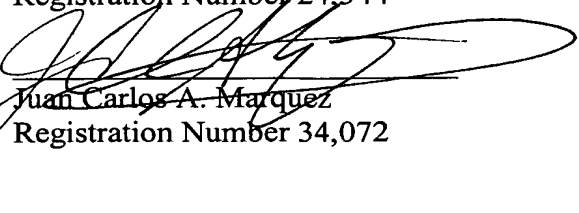
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely. Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

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